(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 17 November 2005 (17.11.2005)

PCT

(10) International Publication Number WO 2005/109425 A2

(51) International Patent Classification7:

G11B 20/00

(21) International Application Number:

PCT/JP2005/008825

(22) International Filing Date:

9 May 2005 (09.05.2005)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

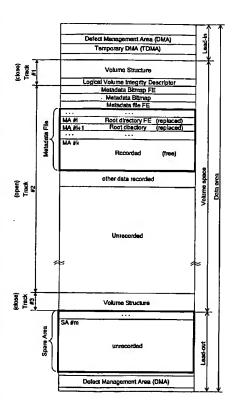
60/569,537 10 May 2004 (10.05.2004) US 60/577,616 7 June 2004 (07.06.2004) US 60/663,791 21 March 2005 (21.03.2005) US 60/668,237 4 April 2005 (04.04.2005) US

(71) Applicants (for all designated States except US): MAT-SUSHITA ELECTRIC INDUSTRIAL CO., LTD. [JP/JP]; 1006, Oaza Kadoma, Kadoma-shi, Osaka, 5718501 (JP). Microsoft Corporation [US/US]; One Microsoft Way, Redmond, Washington, 980526399 (US).

- (72) Inventors; and
- (75) Inventors/Applicants (for US only): GHOTGE, Vishal, V.. THIND, Ravinder, S.. GOTOH, Yoshiho. NAGAR, Rajeev, Y.. BUBAN, Garret, J.. HAVEWALA, Sarosh, C..
- (74) Agents: YAMAMOTO, Shusaku et al.; Fifteenth Floor, Crystal Tower, 2-27, Shiromi 1-chome, Chuo-ku, Osakashi, Osaka, 5406015 (JP).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

[Continued on next page]

(54) Title: RECORDING METHOD AND APPARATUS FOR WRITE-ONCE DISC, REPRODUCTION METHOD AND APPARATUS FOR WRITE-ONCE DISC AND SEMICONDUCTOR INTEGRATED CIRCUIT



(57) Abstract: The recording method of the present invention includes the steps of: receiving a write instruction which specifies at least a logical sector in which data is to be written; determining whether the logical sector corresponds to a recorded physical sector or an unrecorded physical sector; when it is determined that the logical sector corresponds to an unrecorded physical sector, writing the data into the unrecorded physical sector, determining whether a verification of the data which has been written into a physical sector is successful, if the verification of the data that has been written is not successful, writing the data into an unrecorded physical sector, generating a remapping table including remapping information which remaps an original address of the physical sector corresponding to the logical sector to a remapping address of the selected physical sector, and writing the remapping table on the write-once disc.

WO 2005/109425 A2

THE REPORT OF THE PROPERTY OF

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

 without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.